

LAYERED FIBROUS MAT OF DIFFERING FIBERS AND CONTROLLED SURFACES
Application No. 10788,832
Atty.Dkt.: ZM921-04004

CLAIMS

Claims 1-21 (Canceled):

Claim 22. (Original): A mat of fibrous media comprising: at least a first layered mat portion of selected first fiber size distribution and permeability and at least a second layered mat portion of selected second fiber size distribution and permeability both said first and second layered mat portions being of substantially aligned fibers of first and second selected fiber size distributions and permeabilities with each being attenuated as layers from spaced orifice sources directly to separate, spaced similarly rotating collector sources with one of such sources receiving said layered mat portion from the other immediately preceding spaced rotating collector source.

Claim 23. (Original): The mat of fibrous media of Claim 22, wherein said first and second layered mat portions are combined in an interspersed manner.

Claim 24. (Original): The mat of fibrous media of Claim 22, wherein said first and second layered mat portions are combined in a successive manner.

Claim 25. (Original): The mat of fibrous media of Claim 22, wherein at least one portion of said layered portions is a product of turbulently entangled fibers with varied fiber size distribution.

Claim 26. (Original): The mat of fibrous media of Claim 22, wherein said fibers of said first layered portion are of melt blown composition and said fibers of said second layered portion are of melt blown composition.

Claim 27. (Currently Amended): The mat of fibrous media of Claim 22, wherein said fibers of said first layered portion are of a fiber ~~fiber~~ size distribution in the approximate range of zero point one (0.1) to twenty seven (27) micrometers and said second layered portion are of a fiber ~~fiber~~ size distribution in the approximate range of one (1) to fifty (50) micrometers.

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Claim 28. (Original): The mat of fibrous media of Claim 23, wherein said fibers of said first layered portion are in the approximate permeability range of five (5) to two thousand (2000) cubic feet per minute per square foot (cfm/ft²) permeability and said fibers of said second layers are in the approximate permeability range of thirty (30) to four thousand (4000) cubic feet per minute per square foot (cfm/ft²) permeability.

Claim 29. (Currently Amended): A mat of fibrous filter media comprising: at least a first layered filter media mat portion of synthetic melt blown composition with approximate fiber ~~fiber~~ size distributions being in the approximate range of zero point one (0.1) to twenty seven (27) micrometers and a permeability in the approximate range of five (5) to two thousand (2000) cubic feet per minute (cfm/ft²) and, a second successive layered filter media mat portion of synthetic melt blown composition with ~~fiber-fiber~~ size distributions being in the approximate range of one (1) to fifty (50) micrometers and permeability in the approximate range of thirty (30) to four thousand (4000) cubic feet per minute per square foot (cfm/ft²), each layered portion having been attenuated as layers from selectively spaced melt blown orifice sources to separate spaced rotating collector sources with one of such sources receiving said layered mat portion from the other immediately preceding collector source.

Claims 30-32 (Canceled):

Claim 33. (Currently Amended): A fibrous filter media comprising a plurality of fibrous layers, said plurality of fibrous layers having a first and second fibrous layer, said first fibrous layer having a first fiber size distribution and first porosity, said second fibrous layer having a second fiber size distribution and second porosity, said first and said second fibrous layers each being attenuated as layers from spaced orifice sources directly to separate, spaced similarly

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rotating collector sources with one of such sources receiving said layered mat portion from the other immediately preceding spaced rotating collector source.

Claim 34. (Previously Presented): The fibrous filter media of Claim 33 wherein said first fiber size is in a range of approximately 0.1 to 27 micrometers.

Claim 35. (Previously Presented): The fibrous filter media of Claim 33 wherein said first porosity is in a range of approximately 5 to 2000 cfm/ft².

Claim 36. (Previously Presented): The fibrous filter media of Claim 33 wherein said second fiber size is in a range of approximately 1 to 50 micrometers.

Claim 37. (Previously Presented): The fibrous filter media of Claim 33 wherein said second porosity is in a range of approximately 30 to 4000 cfm/ft².

Claim 38. (Previously Presented): The fibrous filter media of Claim 33 wherein said plurality of fibrous layers have a synthetic composition.

Claim 39. (Previously Presented): The fibrous filter media of Claim 33 wherein said plurality of fibrous layers has a third fibrous layer adjacent said second fibrous layer and having a third fiber size distribution and third porosity, said third fiber size distribution being substantially similar to said second fiber size distribution and said third porosity being substantially similar to said second porosity .

Claim 40. (Previously Presented): The fibrous filter media of Claim 33 wherein at least one of said plurality of fibrous layers has a portion of the fibers having been curled and entangled.

Claim 41. (Previously Presented): The fibrous filter media of Claim 33 wherein said first fiber size distribution is smaller than said second fiber size distribution.

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Claim 42. (Previously Presented): The fibrous filter media of Claim 33 wherein said first fibrous layer has a smooth surface opposite said second fibrous layer, said first fiber size distribution being less than said second fiber size distribution.

Claim 43. (Previously Presented): The fibrous filter media of Claim 33 wherein said first fibrous layer has a smooth surface opposite said second fibrous layer, said second fibrous layer having curled and entangled fibers with a greater size distribution than said first fiber size distribution.

Claim 44. (Previously Presented): The fibrous filter media of Claim 33 wherein said first fibrous layer has a smooth surface opposite said second fibrous layer, said second fibrous layer having a greater fiber size distribution than said first fiber size distribution, said second fibrous layer having a smooth surface opposite said first fibrous layer.